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This chapter provides the guidelines for establishing the true tax value of residential yard and agricultural yard structures. This chapter includes guidelines for collecting and recording the physical characteristics of each type of yard structure, the procedures necessary to calculate the replacement cost of each yard structure, and the procedures necessary to calculate the true tax value of each yard structure.

Step-by-step instructions indicate how to enter information about residential and agricultural yard structures in the “Summary of Non-Residential Improvements” section of the property record card. The necessary depreciation tables and cost schedules are provided in Appendix B and Appendix C.

Residential yard structures include:

- utility sheds
- greenhouses
- tennis courts
- stables
- boat houses
- gazebos
- car sheds
- bath houses
- detached garages
- exterior features valued as yard items
- geothermal heating and cooling systems
- solar heating and cooling systems
- in-ground swimming pools
- above-ground swimming pools
- swimming pool enclosures

Agricultural yard structures include:

- dairy barns
- feed lots
- silos
- steel grain bins
- granaries
- milk houses
- milking parlors
- tobacco barns
- quonset buildings
- wire corn cribs
- slurry tanks
- lean-tos
- veal confinement facilities
- trench and bunker silos
- bank and flat barns
- chicken, duck, and turkey barns
- hog confinement facilities
- poultry confinement facilities
- poultry houses, non-confinement
- frame corn cribs, free-standing type
- frame corn cribs, drive-through type
- potato storage buildings
- butler low-moisture silage silos
- general purpose pole-framed barns and machine sheds

Completing a Property Record Card

The valuation of residential and agricultural yard structures is recorded in the “Summary of Non-Residential Improvements” section of the property record card, shown in Figure 5-1. Space is provided in the table to itemize each structure. Each row corresponds to one particular structure. The improvement value of all of the structures is totaled at the bottom of the table.

Note: If the property has more structures than there are rows in this section of the property record card, use an additional card (or cards) to describe those structures.

The steps for completing the property record card for residential and agricultural yard structures are grouped into the following tasks, described in the sections below:

- Task 1—Record information about the structure.
- Task 2—Determine the base rate for the structure.
- Task 3—Determine the adjusted base rate and replacement cost for the structure.
- Task 4—Calculate the remainder value of the structure.
- Task 5—Calculate the improvement value of the structure.
- Task 6—After performing Task 1 through Task 5 for each structure on the property, calculate the total non-residential improvement value for the property.

Figure 5-1. Summary of Non-Residential Improvements Section

Task 1—Recording Information

In this task, you provide descriptive information about the characteristics of the structure. The shading in Figure 5-2 indicates the columns of the “Summary of Non-Residential Improvements” table that you complete in this task.

Figure 5-2. Columns Completed in Task 1

To record information about the structure, perform these steps:

Step 1 In the “ID” column, select an identification number for the structure. Record the information about the structure in the row corresponding to this identification number. Also, use this number to identify the location of the individual structure relative to the dwelling or other structures in the sketch area.

Note: It is *not* necessary to sketch the structure to scale or to show the dimensions of the structure in the sketch area.

Step 2 In the “Use” column, enter the predominant use of the structure. A list of common use options is provided earlier in this chapter.

Step 3 In the “Story Height” column, enter the height of the structure in feet, measured from the top of the floor to the eaves.

Step 4 In the “Const. Type” column, enter the type of exterior wall construction used for the structure. The exterior wall construction options are

- Frame or aluminum (Fr)
- Stucco (Stco)
- Tile (Tile)
- Concrete block (CB)
- Metal (Mtl)
- Concrete (Conc)
- Brick (Br)
- Stone (Stn).

Step 5 In the “Grade” column, enter the grade for the structure. Information about determining the grade for a structure is provided in Appendix A.

Step 6 In the “Year Const.” column, indicate when the structure was originally constructed. Follow these guidelines:

- If you are sure of the date, enter just the date, for example “1990”.
- If you (the assessor) must estimate the date, enter the date followed by a question mark, for example “1985?”.
- If the owner estimates the date, enter the date followed by “+/-”, for example “1985+/-”.
- Enter “Old” to indicate construction prior to:
 - 1938 if the structure is depreciated from the 40 year life expectancy table
 - 1953 if the structure is depreciated from the 30 year life expectancy table
 - 1969 if the structure is depreciated from the 20 year life expectancy table
 - 1974 if the structure is depreciated from the in-ground swimming pool depreciation table
 - 1989 if the structure is depreciated from the above-ground swimming pool depreciation table.

Step 7 *Swimming pools only. If the pool shows excessive physical deterioration for its age and you have subtracted six (6) years from its construction year, you must enter the new year in the “Eff. Age” column. This is explained in the section **Using the Swimming Pools Depreciation Tables** in Appendix B.*

If the effective age of the pool is the same as the actual age, leave this column blank.

Step 8 In the “Cond.” column, enter the code indicating the assigned condition of the structure. Table 5-1 describes the codes for this column.

Table 5-1. Condition Ratings for Yard Improvements

Classification	Indicated Depreciation
Excellent	The structure is in like-new physical condition and has been well maintained. It has been modernized and updated and suffers from no inutilities.
Good	The structure has been maintained in better physical condition than the majority of structures of its age and suffers from no deferred maintenance. It offers more amenities and has better utility than the majority of the structures of its design.
Average	The structure has been maintained like and is in the typical physical condition of the majority of structures of its age. It offers the same utility as the majority of the structures of its design.
Fair	The structure suffers from minor deferred maintenance and demonstrates less physical maintenance than the majority of structures of its age. It suffers from minor inutilities in that it lacks an amenity that the majority of structures of its design offer.
Poor	Many repairs needed; the structure suffers from extensive deferred maintenance. It suffers from major inutilities in that it lacks several amenities that the majority of structures of its design offer. However, it is still being put to some use in the farming operation.
Very Poor	Extensive repairs needed; the structure suffers from extensive deferred maintenance and is near the end of its physical life. It suffers from extensive inutilities in that it lacks most amenities that the majority of structures of its age and design offer. Poor location for the type of structure.

Note: Instructions for determining the condition rating for a structure are provided in Appendix B.

Step 9 In the “Features” column, enter the abbreviations for any features that alter the base rate for the structure. For a list of features for each type of structure, refer to the section “Improvement Features” on the property record card, shown in Figure 5-3.

Step 10 In the “L/M” column, enter the location multiplier for your county, which can be found in Table C-1 in Appendix C.

Step 11 In the “Size or Area” column, enter the size or area of the structure. “Size” refers to the dimensions of the structure, such as length and width, or diameter and height. “Area” refers to the square foot ground area of the structure.

To determine whether to enter the size (and if size is used, exactly which dimensions) or the area of the structure, refer to the cost schedule for the structure type. Measure the dimensions and use the same units of measurement as the appropriate cost schedule uses.

Step 12 In the “Normal Depr.” column, enter the total depreciation from the appropriate depreciation table. Information about evaluating depreciation is provided in Appendix B.

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Figure 5-3. Improvement Features

Task 2—Determining the Base Rate

You determine the base rate of the structure using the cost schedule for the appropriate type of structure. The cost schedules for residential and agricultural yard structures are provided in Appendix C.

The cost schedules provide either whole dollar or square foot unit values. The schedules are based on a “C” grade unless otherwise specified. Each schedule includes base rates for the typical range of size or configuration for the type of structure.

The rates given, unless otherwise specified, apply to detached, free standing structures. **For attached structures, not identified as such in the pricing schedules, apply the following multipliers to the price derived from the pricing schedules:**

- (1) If one (1) end or the shortest length is attached, multiply by ninety-hundredths (.90).
- (2) If one (1) side or the longest length is attached, multiply by eighty-hundredths (.80).

The shading in Figure 5-4 indicates the columns of the “Summary of Non-Residential Improvements” table that you complete when determining the base rate for a structure.

Figure 5-4. Columns Completed in Task 2

Using Area (Square Footage)

To determine the base rate for a structure that uses a schedule based on **area (square footage)**, perform these steps:

Step 1 Based on the type of structure, locate the appropriate cost schedule.

Step 2 In the “Area” column of the cost schedule, locate the row corresponding to the square footage of the structure (entered in the “Size and Area” column in the “Summary of Non-Residential Improvements” section).

If the structure is any type other than a general purpose pole barn, use the area in the cost schedule that is closest to the actual square footage of the structure. There is no need to interpolate between these rates.

If the structure is a general purpose pole barn, perform the interpolation procedure described in the cost schedule and shown in Example 2, below. The interpolation procedure calculates a value for a pole barn that has measurements different than those listed in the schedule. The first number in the size column represents the width of the structure and the second number represents the length. A size deviation in a building should be compared against the width column of the schedule first.

The procedure below applies when selecting the next smallest and next largest structure from the cost schedule:

- *If the width of the subject building exactly matches the width in the size column, the interpolation of the rates is between the lengths only. For example, a subject building measuring 50' x 150' uses the 50' x 140' building and the 50' x 160' building in the interpolation process.*
- *If the width of the subject does not exactly match the width in the size column and the lengths do match, the interpolation of the rates is between the widths only. For example, a subject building measuring 48' x 100' uses the 40' x 100' building and the 50' x 100' building in the interpolation process.*
- *If the width and length of the subject building does not exactly match the sizes listed in the cost schedule, the interpolation of the rates begins with the width first, then the length. A subject building measuring 75' x 150' uses the 60' x 140' building and the 80' x 160' building in the interpolation process. The first comparison in this example is the width since 75' is above 60' and below 80'. The second qualifier is the 140' length and the 160' length which is the range when analyzing the 150' length.*

If the area of the structure is larger than the largest area or smaller than the smallest area provided in the cost schedule, extrapolate to calculate the amount to add to, or subtract from, the base rate. When extrapolating, perform the following calculations:

- a. *For an area larger than the square footage listed on the schedule, calculate the difference between the rate of the largest square footage and the rate of the next highest square footage. Subtract this*

difference from the rate of the largest square footage to arrive at the appropriate rate for the subject building.

- b. *For an area smaller than the square footage listed on the schedule,* calculate the difference between the rate of the smallest square footage and the rate of the next smallest square footage. Add this difference to the rate of the smallest square footage to arrive at the appropriate rate for the subject building.

Step 3 Find the intersection of the selected row (area in square feet) and the appropriate column. In the “Base Rate” column in the “Summary of Non-Residential Improvements” section, enter the number that you find (or interpolate or extrapolate).

Note: The column headings vary in the cost schedules. Often there are separate columns for different types of construction.

Example 1: The following example illustrates the procedure of determining the base square foot rate for a detached frame garage which measures 20' x 24'.

- a. Calculate the area to be 480 square feet ($20 \times 24 = 480$ square feet)
- b. In the detached garage schedule, find the area closest to 480 square feet.
- c. In the row for 500 square feet, follow across to the right to the column labeled frame.
- d. Record the base rate of \$21.05 in the base rate column of the “Summary of Non-Residential Improvements” section.

Example 2:

The following detailed example illustrates the interpolation procedure using a 14' high general purpose pole building with the dimensions of 75' by 150'.

- a. Select the model width(s) and length(s) closest to the subject building (60' x 140' and 80' x 160').
- b. Select (or calculate) the square foot rate applicable for each of the two areas immediately smaller and larger than the subject building.

$$60' \times 140' = 8,400 = 6.10$$

$$80' \times 160' = 12,800 = 5.80$$

Any height adjustment to the subject building above 14' or below 14' must be attributed to the smallest size and largest size when calculating the rate in Step b.

- c. Calculate the difference in the whole dollar value applicable to each of the areas selected in Step b.

$$60' \times 140' = 8,400 \times 6.10 = 51,240$$

$$80' \times 160' = 12,800 \times 5.80 = 74,240$$

$$74,240 - 51,240 = 23,000$$

- d. Divide the result from Step c by the difference in the areas used in Step b.

$$12,800 - 8,400 = 4,400 \text{ sq. ft.}$$

$$23,000 \div 4,400 = 5.23$$

- e. Apply the rate from Step d to the difference in the area of the subject building and the smaller area of the two used in Step b.

$$\text{Subject building } 75' \times 150' = 11,250 \text{ sq. ft.}$$

$$\text{Smaller building } 60' \times 140' = 8,400 \text{ sq. ft.}$$

$$11,250 - 8,400 = 2,850 \text{ sq. ft.}$$

$$2,850 \times 5.23 = 14,905$$

- f. Add the result from Step e to the whole dollar value calculated for the smaller area in Step c and round to the nearest \$10 to arrive at the value of the 75' x 150' building.

$$60' \times 140' \times 6.10 = 51,240$$

$$51,240 + 14,905 = 66,150$$

Using Whole Dollar Amounts

To determine the base rate for a structure that uses a schedule based on **whole dollar amounts**, perform these steps:

Step 1 Based on the type of structure, locate the appropriate cost schedule.

Step 2 In the "Size" column of the cost schedule, locate the row corresponding to the size of the structure, which you entered in the "Size and Area" column in the "Summary of Non-Residential Improvements" section. Use the area in the cost schedule that is closest to the actual size of the structure.

Note: *If the size of the structure is larger than the largest size or smaller than the smallest size provided in the cost schedule, extrapolate to calculate the amount to add to, or subtract from, the base rate. When extrapolating, go to the column that best represents the size of the subject building and perform the following calculations:*

- a. For sizes smaller than those listed in the cost schedule, calculate the difference between the two smallest sizes listed in the schedule and subtract the difference from the smallest size in the schedule.

- b. For sizes larger than those listed in the cost schedules, calculate the difference between the two largest sizes listed in the schedule and add the difference to the largest size in the schedule.

Step 3 Find the intersection of the selected row and the appropriate column. In the “Base Rate” column in the “Summary of Non-Residential Improvements” section, enter the number that you find (or extrapolate).

Example 1: The following example illustrates the procedure of determining the whole dollar base rate for a 18’ diameter above ground pool:

- a. In the diameter column, find the diameter closest to 18’.
- b. In the 18’ diameter row, locate the base rate.
- c. Record the rate of \$2300 in the base rate column of the “Summary of Non-Residential Improvements” section.

Example 2: The following example illustrates the extrapolation procedure for finding the base rate for a steel grain bin that measures 30’ x 55’ 0”.

- a. Find the size and base rate for the closest 30’ steel bin. This is 30’ x 47’8” which has a base rate of 30,400.
- b. Find the size and base rate for the next closest 30’ steel bin. This is 30’ x 40’4” which has a base rate of 24,100.
- c. Find the difference between the rates found in Step a and Step b ($30,400 - 24,100 = 6,300$).
- d. Add the difference calculated in Step c to the largest 30’ bin rate in Step a ($6,300 + 30,400 = 36,700$).
- d. The base rate for a 30’ x 55’0” steel bin is 36,700. Record this base rate in the base rate cell in the “Summary of Non-Residential Improvements” section.

Task 3—Determining the Adjusted Base Rate and Replacement Cost

The adjusted base rate for the structure is the base rate, adjusted to take into account any relevant features identified for the structure, an adjustment for location (by applying the location cost multiplier), and the grade factor percentage. *If the structure uses a cost schedule based on area (square footage), the replacement cost for the structure is the structure’s area multiplied by the adjusted base rate (per square foot). If the structure uses a cost schedule based on whole dollar amounts, the replacement cost is the same as the adjusted base rate.*

The shading in Figure 5-5 indicates the columns of the “Summary of Non-Residential Improvements” section that you complete when determining the adjusted base rate and replacement cost of the structure.

IMPROVEMENT DATA AND COMPUTATIONS														
Major Items					Improvement Features									
Residential					Agricultural									
1 Single Family 2 Duplex 3 Triplex 4 4-5 Family 5 M. Home 6 Row-type 7 Frame w/Aluminum 8 Stone 9 Frame w/Masonry					10 Note 11 Unfinished 12 1/2 Finished 13 3/4 Finished 14 Finished 15 Full					16 BARN 17 T/S/L/P/E/I/D/Q 18 CONFINEMENT 19 T/P/E/C/I 20 Stalls 21 CORN CRIB 22 FrameWire 23 No Roof 24 Floor 25 GRANARIES 26 Storage Box 27 GRAIN BINS - STEEL 28 Dams & Height or 29 QUONSET BUILDINGS 30 E/I/H 31 SLOPE/PAVEMENT 32 SLOPE/PAVEMENT 33 Ground/stone 34 Round/rectangle 35 Round/rectangle 36 Round/rectangle 37 Round/rectangle 38 Round/rectangle 39 Round/rectangle 40 Round/rectangle 41 Round/rectangle 42 Round/rectangle 43 Round/rectangle 44 Round/rectangle 45 Round/rectangle 46 Round/rectangle 47 Round/rectangle 48 Round/rectangle 49 Round/rectangle 50 Round/rectangle 51 Round/rectangle 52 Round/rectangle 53 Round/rectangle 54 Round/rectangle 55 Round/rectangle 56 Round/rectangle 57 Round/rectangle 58 Round/rectangle 59 Round/rectangle 60 Round/rectangle 61 Round/rectangle 62 Round/rectangle 63 Round/rectangle 64 Round/rectangle 65 Round/rectangle 66 Round/rectangle 67 Round/rectangle 68 Round/rectangle 69 Round/rectangle 70 Round/rectangle 71 Round/rectangle 72 Round/rectangle 73 Round/rectangle 74 Round/rectangle 75 Round/rectangle 76 Round/rectangle 77 Round/rectangle 78 Round/rectangle 79 Round/rectangle 80 Round/rectangle 81 Round/rectangle 82 Round/rectangle 83 Round/rectangle 84 Round/rectangle 85 Round/rectangle 86 Round/rectangle 87 Round/rectangle 88 Round/rectangle 89 Round/rectangle 90 Round/rectangle 91 Round/rectangle 92 Round/rectangle 93 Round/rectangle 94 Round/rectangle 95 Round/rectangle 96 Round/rectangle 97 Round/rectangle 98 Round/rectangle 99 Round/rectangle 100 Round/rectangle				
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107 Note 108 Unfinished 109 1/2 Finished 110 3/4 Finished 111 Finished 112 Full														
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197 Note 198 Unfinished 199 1/2 Finished 200 3/4 Finished 201 Finished 202 Full														
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701 Note 702 Unfinished 703 1/2 Finished 704 3/4 Finished 705 Finished 706 Full														
707 Note 708 Unfinished 709 1/2 Finished 710 3/4 Finished 711 Finished 712 Full														
713 Note 714 Unfinished 715 1/2 Finished 716 3/4 Finished 717 Finished 718 Full														
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743 Note 744 Unfinished 745 1/2 Finished 746 3/4 Finished 747 Finished 748 Full														
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767 Note 768 Unfinished 769 1/2 Finished 770 3/4 Finished 771 Finished 772 Full														
773 Note 774 Unfinished 775 1/2 Finished 776 3/4 Finished 777 Finished 778 Full														
779 Note 780 Unfinished 781 1/2 Finished 782 3/4 Finished 783 Finished 784 Full														
785 Note 786 Unfinished 787 1/2 Finished 788 3/4 Finished 789 Finished 790 Full														
791 Note 792 Unfinished 793 1/2 Finished 794 3/4 Finished 795 Finished 796 Full														
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803 Note 804 Unfinished 805 1/2 Finished 806 3/4 Finished 807 Finished 808 Full														
809 Note 810 Unfinished 811 1/2 Finished 812 3/4 Finished 813 Finished 814 Full														
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839 Note 840 Unfinished 841 1/2 Finished 842 3/4 Finished 843 Finished 844 Full														
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863 Note 864 Unfinished 865 1/2 Finished 866 3/4 Finished 867 Finished 868 Full														
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881 Note 882 Unfinished 883 1/2 Finished 884 3/4 Finished 885 Finished 886 Full														
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899 Note 900 Unfinished 901 1/2 Finished 902 3/4 Finished 903 Finished 904 Full														
905 Note 906 Unfinished 907 1/2 Finished 908 3/4 Finished 909 Finished 910 Full														
911 Note 912 Unfinished 913 1/2 Finished 914 3/4 Finished 915 Finished 916 Full														
917 Note 918 Unfinished 919 1/2 Finished 920 3/4 Finished 921 Finished 922 Full														
923 Note 924 Unfinished 925 1/2 Finished 926 3/4 Finished 927 Finished 928 Full														
929 Note 930 Unfinished 931 1/2 Finished 932 3/4 Finished 933 Finished 934 Full														
935 Note 936 Unfinished														

To determine the adjusted base rate and replacement cost for the structure, perform these steps:

- Step 1 Compare the features that you entered in the “Features” column in the “Summary of Non-Residential Improvements” section with the features in the cost schedule for the structure. If the cost schedule indicates that the base rate should be adjusted because of one or more of the features, adjust the base rate accordingly.
- Step 2 Determine and enter the location cost multiplier established for your county in the “L/M” cell. The table containing the location cost multipliers can be found in Appendix C.
- Step 3 Divide the grade factor percentage corresponding to the grade entered in the “Grade” column in the “Summary of Non-Residential Improvements” section by 100 to arrive at a multiplier. Instructions for determining the grade factor percentage for a structure are provided in the section ***Assigning Grades to Residential and Agricultural Yard Structures*** in Appendix A.
- Step 4 Calculate the adjusted base rate by multiplying the base rate (adjusted for any features) by the multiplier obtained in Step 2 and then by the multiplier in step 3:

$$\begin{array}{ccccccc} \text{Adjusted} & = & \text{Base rate} & \times & \text{Multiplier} & \times & \text{Multiplier} \\ \text{base rate} & & \text{adjusted} & & \text{obtained} & & \text{obtained in} \\ & & \text{for features} & & \text{in Step 2} & & \text{Step 3} \end{array}$$

Enter the adjusted base rate in the “Adj. Rate” column.

- Step 5 *If the structure uses a schedule based on area (square footage),* calculate the replacement cost by multiplying the adjusted base rate (entered in the “Adj. Rate” column) by the structure’s square footage (entered in the “Size or Area” column):

$$\begin{array}{ccccccc} \text{Replacement} & = & \text{Adjusted} & \times & \text{Area} \\ \text{cost} & & \text{base rate} & & \text{(square footage)} \end{array}$$

Round the replacement cost to the nearest \$10 and enter it in the “Replacement Cost” column.

If the structure uses a schedule based on whole dollar amounts, round the adjusted base rate (entered in the “Adj. Rate” column) to the nearest \$10 and enter it in the “Replacement Cost” column.

Example: The procedures for calculating the adjusted base rate and the replacement cost of a 20’ x 24’ detached frame garage with a quality rating of D is as follows:

- The base rate for a 480 square foot detached frame garage of average quality is \$21.05.
- The adjusted rate for the garage is the product of the base rate times the location cost multiplier (i.e. 1.00), times the D grade multiplier of .80. The adjusted base rate is 16.84 (21.05 x 1.00 x .80 = 16.84).
- Record the rate in the adjusted base rate cell in the “Summary of Non-Residential Improvements” section.

- d. The replacement cost is the product of the adjusted base rate times the area of the detached garage. The replacement cost is \$8,080 when rounded to the nearest \$10.
- e. Record the replacement cost in the “Summary of Non-Residential Improvements” section.

Task 4—Calculating the Remainder Value

The structure’s remainder value is its replacement cost adjusted for normal depreciation. The shading in Figure 5-6 indicates the columns of the “Summary of Non-Residential Improvements” table that you complete when calculating the remainder value of the structure.

IMPROVEMENT DATA AND COMPUTATIONS																			
Major Items										Improvement Features									
Residential										Agricultural									
1. Single Family 2. Duplex 3. Triplex 4. 4-5 Family 5. M. Home 6. Row-type 7. Frame or Aluminum 8. Stone 9. Frame w/Masonry										10. Note 11. Unfinished 12. 1/2 Finished 13. 3/4 Finished 14. Finished 15. Full					16. Concrete Floor 17. Electric Lights 18. Heating 19. Cooling 20. Plumbing 21. Type of Construction 22. Frame/Wire 23. No. of Stories 24. Floor 25. Frame/Wire 26. No. of Stories 27. Floor 28. Frame/Wire 29. No. of Stories 30. Floor				
31. Roofing 32. Asphalt Shingles 33. Slate or Tile 34. Metal 35. Floors 36. Earth 37. Sub 38. Sub & Joists 39. Wood 40. Parquet 41. Tile 42. Carpet 43. Unfinished 44. Interior Finish 45. Plaster or Dry Wall 46. Paneling 47. Floorboard 48. Unfinished 49. No Electrical Service 50. Accommodations 51. Total Number of Rooms 52. Bedrooms 53. Family Room 54. Formal Dining Room 55. Loft Area 56. Rec Room 57. Fireplace 58. Masonry 59. Metal 60. Openings										61. Base Area 62. Floor 63. Attic 64. Basement 65. Crawlspace 66. TOTAL BASE 67. Row-type Adjustment 68. SUB-TOTAL 69. Unfinished Interior 70. Extra Living Units 71. Rec. Room 72. Loft 73. Fireplace 74. No Heating 75. Air Conditioning 76. No Electrical Service 77. Plumbing 78. No Plumbing 79. Specialty Plumbing 80. SUB-TOTAL ONE UNIT 81. SUB-TOTAL 82. Integral 83. Attached Garage 84. Attached Carport 85. Basement 86. Exterior Features 87. Grade and Design Factor 88. ADJUSTED SUB-TOTAL 89. Location Multiplier 90. Replacement Cost 91. Heating & Air Conditioning 92. Central Heat/Air 93. Hot Water or Steam 94. Heat Pump 95. No Heat (Gravel/Walkways) 96. Central Air Cond. 97. Extra Living Units 98. Conversion # 99. Occupied #					100. Note 101. 1/4 102. 1/2 103. 3/4 104. Full 105. % 106. SUB-TOTAL 107. Unfinished Interior 108. Extra Living Units 109. Rec. Room 110. Loft 111. Fireplace 112. No Heating 113. Air Conditioning 114. No Electrical Service 115. Plumbing 116. No Plumbing 117. Specialty Plumbing 118. SUB-TOTAL ONE UNIT 119. SUB-TOTAL 120. Integral 121. Attached Garage 122. Attached Carport 123. Basement 124. Exterior Features 125. Grade and Design Factor 126. ADJUSTED SUB-TOTAL 127. Location Multiplier 128. Replacement Cost 129. Heating & Air Conditioning 130. Central Heat/Air 131. Hot Water or Steam 132. Heat Pump 133. No Heat (Gravel/Walkways) 134. Central Air Cond. 135. Extra Living Units 136. Conversion # 137. Occupied #				
138. Summary of Residential Improvements 139. ID 140. Use 141. Story Count 142. Height 143. Year Constructed 144. Grade 145. Features 146. Base Rate 147. Cond. Age 148. L/H 149. Adj. Rate 150. Total Replacement Cost 151. % Improvement 152. Improvement Value 153. Total Residential Improvement Value 154. Supplemental Card Residential Improvement Value 155. Total Residential Improvement Value																			
156. Summary of Non-Residential Improvements 157. ID 158. Use 159. Story Count 160. Height 161. Year Constructed 162. Grade 163. Features 164. Base Rate 165. Cond. Age 166. L/H 167. Adj. Rate 168. Total Replacement Cost 169. % Improvement 170. Improvement Value 171. Total Non-Residential Improvement Value 172. Supplemental Card Non-Residential Improvement Value 173. Total Non-Residential Improvement Value																			

Figure 5-6. Columns Completed in Task 4

To calculate the remainder value, perform these steps:

- Step 1 Subtract the percentage determined for total depreciation (entered in the “Normal Depr.” column) from 100%.
- Step 2 Divide the result obtained in Step 1 by 100 to arrive at a multiplier.
- Step 3 Calculate the remainder value by multiplying the replacement cost of the structure (entered in the “Replacement Cost” column) by the multiplier obtained in Step 2.

$\text{Remainder cost} = \text{Replacement cost} \times \text{Multiplier obtained in Step 2}$

Enter the remainder value in the “Remainder Value” column rounded to the nearest \$10.

Example: The replacement cost of a structure is \$5,500. The normal depreciation percentage for the structure is 30%. The remainder value is:
 $100\% - 30\% = 70\% \div 100 = .70 \times \$5,500 = \$3,850.$

Task 5—Calculating the Improvement Value

The structure’s improvement value is its remainder value, adjusted for abnormal obsolescence and neighborhood factor (if applicable) rounded to the nearest \$100. The shading in Figure 5-7 indicates the columns of the “Summary of Non-Residential Improvements” table that you complete when calculating the improvement value of the structure.

Figure 5-7. Columns Completed in Task 5

To calculate the improvement value of the structure, perform these steps:

- Step 1 *If abnormal obsolescence depreciation applies to the structure*, divide the dollar amount of abnormal obsolescence by the “Remainder Value” to get an abnormal obsolescence depreciation percentage. Enter this percentage in the “Abnorm Obs” Column of the property record card.

Note:

This column can also be utilized to make adjustments for improvements less than 100% complete. Be sure to indicate what you have done in the memorandum section.

- Step 3 Calculate the neighborhood factor and enter the result in the “Nhbd Factor” cell. Information on neighborhood factors can be found in Appendix B.
- Step 4 The improvement value is the remainder value of the dwelling, adjusted for % complete, abnormal obsolescence and neighborhood factor (if necessary), rounded to the nearest \$100. Enter this amount in the “Improvement Value” column on the property record card.

Example: The remainder value of a structure is \$3,850. Assuming the structure is 100% complete, suffers no abnormal obsolescence and the neighborhood factor is 1.00, the improvement value is \$3,900.

Task 6—Calculating the Total Non-Residential Improvement Value

Calculate the improvement value for each structure by performing Task 1 through Task 5 for each structure. If you run out of rows in the “Summary of Non-Residential Improvements” section of the property record card, use an additional card (or cards).

To calculate the total non-residential improvement value for the property, perform these steps:

- Step 1 *If you used **only one** property record card to complete the “Summary of Non-Residential Improvements” for the property*, sum the entries in the “Improvement Value” column and enter the total in the “Total Non-Residential Improvement Value” cell.

*If you used **more than one** property record card to complete the “Summary of Non-Residential Improvements” for the property*, on each card except Card 001, sum the entries in the “Improvement Value” column and enter the total in the “Total Non-Residential Improvement Value” cell.

- Step 2 Sum the entries in the “Total Non-Residential Improvement Value” cell of all of the property record cards except Card 001. Enter the total in the “Supplemental Card Non-Residential Improvement Total” cell on Card 001.
- Step 3 On Card 001, sum the entries in the “Improvement Value” column, including the entry in the “Supplemental Card Non-Residential

Improvement Total” cell and enter the total in the “Total Non-Residential Improvement Value” cell.

[illegible]

Figure 5-8. Calculating the Total Non-Residential Improvement Value Example